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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,878	10/11/2001	Jeffrey A. Goldman	50197/002001	9684

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CLARK & ELBING LLP
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BOSTON, MA 02110

EXAMINER

QUAN, ELIZABETH S

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 01/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/975,878

Applicant(s)

GOLDMAN ET AL.

Examiner

Elizabeth Quan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/11/2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the mechanical faster on the lower face of the base plate as recited in claim 7 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 5 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,475,610 to Atwood et al.

Atwood et al. disclose a heat conducting sample block comprising a top plate (342,372) and base plate (12) each having upper and lower surfaces (figs. 21A, 21B, 22-28). The upper face of the top plate has a plurality of recesses (374) therein (figs. 21A, 21B, 22-28). Each recess has an opening for accepting a sample or sample vessel (figs. 21A, 21B, 22-28). The lower face of the top plate has a plurality of projections (376) extending toward and fixedly engaged with a conical notch on the upper surface of the base plate, such that x-y registration of the top plate and

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base plate is achieved (figs. 21A, 21B, 22-28). The projections are considered fixedly engaged with the notch since the projections are made stable or steady by fitting together in a connecting relationship. According to Merriam-Webster Collegiate Dictionary, to fix is to make firm, stable, or stationary or to hold or direct steadily; and to engage is to interlock with: mesh or to take part: participate; and to mesh is to fit or work together properly or to coordinate closely: interlock; to interlock is to lock together: unite or to become locked together or interconnected; and to connect is to become joined or to place or establish in relationship. Each of the notches is considered undercut since the notches have an angle relative to the longitudinal axis of the projections of 17 degrees (figs. 21A, 21B, 22-28; col. 44, lines 31-40). According to Merriam-Webster Collegiate Dictionary, undercut is defined as the action or result of cutting away from the underside or lower part of something.

4. Claims 1, 2, 5, 6 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,616,301 to Moser et al.

Moser et al. disclose a heat conducting sample block comprising a top plate (23) and base plate (33,34) each having upper and lower surfaces (fig. 1). The upper face of the top plate has a plurality of recesses therein (fig. 3). Each recess has an opening for accepting a sample or sample vessel (fig. 3; col. 3, lines 4-7). The lower face of the top plate has a plurality of projections (21) extending toward and fixedly engaged with a notch on the upper surface of the base plate, such that x-y registration of the top plate and base plate is achieved (figs. 1 and 3). The base plate comprises a mechanical fastener by which the lid (28) is attached and top plate with a plurality of projections is attached (fig. 3). These mechanical fasteners ensure that the projections are fixedly engaged with respective notches (figs. 3-5; col. 5, line 35-col. 6, line 11).

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The base plate is comprised of multiple layers (33,34), which provide conical notches in which a projection fits into a notch. At least one layer of the base plate is made of silver (col. 3, lines 28-30).

5. Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,402,407 to Maly.

Maly discloses a heat conducting sample block (10) comprising a top plate (18) and base plate (12) (figs. 1-3). The base plate may be a composite made of graphite fiber weave and an encapsulant since the base plate may be made of a metal reinforced by chopped or long fibers of graphite (col. 3, lines 4-22).

6. Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,369,104 to Beckley.

Beckley discloses a heat conducting sample block (10) comprising a top plate (18) and base plate (12) (figs. 1-3). The base plate may be a composite made of graphite fiber weave and an encapsulant since the base plate may be made of a resin containing graphite fibers (col. 3, lines 38-43).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1, 5, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/43740 to Atwood et al. in view of U.S. Patent No. 5,721,136 to Finney et al. or U.S. Patent No. 5,475,610 to Atwood et al. or U.S. Patent No. 6,340,589 to Turner et al.

Atwood et al. ('740) disclose a heat conducting sample block comprising a top plate (21) and base plate (22) each having upper and lower surfaces (figs. 1 and 3). The upper face of the top plate has a plurality of recesses therein (figs. 1 and 3). Each recess has an opening for accepting a sample or sample vessel (figs. 1 and 3; page 4). The lower face of the top plate has a plurality of projections (20) extending toward and fixedly engaged with the upper surface of the

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base plate, such that x-y registration of the top plate and base plate is achieved (figs. 1 and 3; page 7). At least one of the top plate or base plate is comprised of silver (pages 6 and 7).

Atwood et al. ('740) do not explicitly disclose notches on the upper face of the base plate. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the block of Atwood et al. to include notches on the upper surface of the base plate to maintain the projections in an upright position and aid in aligning the top plate with projections with the notches of the base plate for assembling ease as taught by Finney et al. or Atwood et al. ('610) or Turner et al.

11. Claims 1, 4, 5, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,657,169 to Brown in view of U.S. Patent No. 6,340,589 to Turner et al. or U.S. Patent No. 6,555,792 to Elsener et al., and further in view of U.S. Patent No. 5,721,136 to Finney et al. or U.S. Patent No. 5,475,610 to Atwood et al. or U.S. Patent No. 6,340,589 to Turner et al.

Brown discloses a heat conducting sample block comprising a base plate (22) with an upper surface and lower surface (fig. 5). A plurality of projections extend toward and fixedly engaged the upper surface of the base plate (fig. 5). The base plate and projections are preferably made of copper alloy with a finish of electroplated gold over electroless nickel or other materials with high thermal conductivity (col. 5, lines 60-64). The projections may be silver brazed to the base plate (col. 6, lines 12-16). According to Merriam-Webster Collegiate Dictionary, braze is defined as to solder with a nonferrous alloy having a lower melting point than the metals being joined. Therefore, the silver joining the projections and base plate has a heat capacity lower than either of the projections and base plate. The base plate has holes through which attachment screws or fasteners pass from the upper surface to the lower surface,

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such that the base plate is considered to comprise a mechanical fastener on its lower face (col. 5, lines 27-32).

Brown fails to disclose a top plate. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the block of Brown to include a top plate uniting all the projections such that the upper face of the top plate has a plurality of recesses each of which has an opening into the interior of the projection for accepting a sample or sample vessel for manufacturing ease by simultaneously joining all projections to the base plate rather than joining each projection individually without the plate uniting them as taught by Turner et al.

Brown does not explicitly disclose notches on the upper face of the base plate. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the block of Atwood et al. to include notches on the upper surface of the base plate to maintain the projections in an upright position and aid in aligning the top plate with projections with the notches of the base plate for assembling ease as taught by Finney et al. or Atwood et al. or Turner et al.

12. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,475,610 to Atwood et al. (in the alternative) or U.S. Patent No. 5,616,301 to Moser et al. in view of U.S. Pub No. 2002/0197622 to McDevitt et al. or U.S. Patent No. 6,309,605 to Zermani.

Moser et al. or Atwood et al. fail to disclose undercut notches. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the block of Moser et al. or Atwood et al. to provide undercut notches to better retain the article within the notch as taught by McDevitt et al. or Zermani.

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13. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,475,610 to Atwood et al. or U.S. Patent No. 5,616,301 to Moser et al. in view of U.S. Patent No. 4,402,407 to Harrigan, Jr. et al. or U.S. patent No. 4,402,402 to Maly or U.S. Patent No. 3,770,488 to Pepper et al.

Atwood et al. and Moser et al. each disclose a top plate and bottom plate. Neither Atwood et al. nor Moser et al. disclose the base plate is a composite made of a graphite fiber weave and an encapsulant. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the block of Atwood et al. or Moser et al. to make the base plate from a graphite fiber weave and an encapsulant since exhibits a very high degree of strength and elasticity at elevated temperatures as taught by Harrigan, Jr. et al. or Maly or Pepper et al.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Quan whose telephone number is (571) 272-1261. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Elizabeth Quan
Examiner
Art Unit 1743


Jill Warden
Supervisory Patent Examiner
Technology Center 1700